CLAIMS:

We claim:

1.   An application component distribution system comprising:

a repository of semantic models for interdependent ones of application components;

a mapping of individual listings in said semantic models to target platform specific installation instructions; and,

a script generation engine configured to produce a target specific set of instructions for a specified application component based upon a mapping of at least one of said semantic models in said repository.

2.   The application component distribution system of claim 1, wherein each of said semantic models comprises a listing of component relationships, target platform requirements and platform neutral installation instructions.

3.   The application component distribution system of claim 2, wherein said component relationships comprises at least one component relationship selected from the group consisting of a containment relationship, a usage relationship, a contradiction relationship, and an equivalence relationship.

4.   The application component distribution system of claim 1, further comprising a Web services interface to said repository configured to permit remote access to said repository.

5.   A script generation engine comprising:

a communicative coupling to a repository of semantic models for interdependent ones of application components configured for installation in a target platform;

a mapping of individual listings in said semantic models to specific installation instructions for specific target platforms; and,

a script composition processor programmed to produce a specific set of instructions for installing a specified one of the interdependent application components in a specified one of said target platforms based upon said mapping.

6.   The script generation engine of claim 5, wherein each of said semantic models comprises a listing of component relationships, target platform requirements and platform neutral installation instructions.

7.   The script generation engine of claim 6, wherein said component relationships comprises at least one component relationship selected from the group consisting of a containment relationship, a usage relationship, a contradiction relationship, and an equivalence relationship.

8.   A method for generating an installation script for installing an application component to a specific target platform, the method comprising the steps of:

retrieving a semantic model for the application component from a communicatively coupled repository of semantic models;

determining from said semantic model, a set of dependent components required to be present in the specific target platform;

further determining from said semantic model a set of resource requirements required to be met by the specific target platform; and,

mapping said set of dependent components and said set of resource requirements into platform specific instructions in a platform specific installation script.

9.   The method of claim 8, further comprising the steps of:

yet further determining from said semantic model a set of platform neutral installation operations; and,

further mapping said set of platform neutral installation operations into said platform specific instructions.

10   The method of claim 8, wherein the determining step comprises the steps of:

identifying a set of dependent components for the application component; and,

further identifying a set of sub-dependent components for at least one of said dependent components.

11.   The method of claim 10, further comprising the step of repeating the identifying and further identifying steps for each dependent and sub-dependent component in a hierarchy of dependent components for the application component.

12.   The method of claim 8, wherein the further determining step comprises the step of computing an composite set of resource requirements for the application component and for said set of dependent components.

13.   A machine readable storage having stored thereon a computer program for generating an installation script for installing an application component to a specific target platform, the computer program comprising a routine set of instructions when executed cause the machine to perform the steps of:

retrieving a semantic model for the application component from a communicatively coupled repository of semantic models;

determining from said semantic model, a set of dependent components required to be present in the specific target platform;

further determining from said semantic model a set of resource requirements required to be met by the specific target platform; and,

mapping said set of dependent components and said set of resource requirements into platform specific instructions in a platform specific installation script.

14.   The machine readable storage of claim 13, further comprising the steps of:

yet further determining from said semantic model a set of platform neutral installation operations; and,

further mapping said set of platform neutral installation operations into said platform specific instructions.

15   The machine readable storage of claim 13, wherein the determining step

comprises the steps of:

identifying a set of dependent components for the application component; and,

further identifying a set of sub-dependent components for at least one of said

dependent components.

16.   The machine readable storage of claim 15, further comprising the step of

repeating the identifying and further identifying steps for each dependent and sub-

dependent component in a hierarchy of dependent components for the application

component.

17.   The machine readable storage of claim 13, wherein the further determining step

comprises the step of computing an composite set of resource requirements for the

application component and for said set of dependent components.